RAW SEQUENCE LISTING

The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) no errors detected.

Application Serial Number: _10/712, 850_
Source: _1 Fwo_
Date Processed by STIC: _10/18/04_

ENTERED

IFWO

RAW SEQUENCE LISTING   DATE: 10/18/2004
PATENT APPLICATION: US/10/712,850   TIME: 10:33:57

Input Set : **A:\Durden-'850US-SeqList.txt**
Output Set: **N:\CRF4\10182004\J712850.raw**

```
 4 <110> APPLICANT: Donald L. Durden
 5       ADVANCED RESEARCH & TECHNOLOGY INSTITUTE
 7 <120> TITLE OF INVENTION: Compositions and Methods for Identifying
 8       Agents Which Modulate PTEN Function and PI-3 Kinase Pathways
11 <130> FILE REFERENCE: 1857-PO2575US2
13 <140> CURRENT APPLICATION NUMBER: 10/712,850
14 <141> CURRENT FILING DATE: 2003-11-13
17 <150> PRIOR APPLICATION NUMBER: 09/870,379
18 <151> PRIOR FILING DATE: 2001-05-30
20 <150> PRIOR APPLICATION NUMBER: 60/274,167
21 <151> PRIOR FILING DATE: 2001-03-08
23 <150> PRIOR APPLICATION NUMBER: 60/208,437
24 <151> PRIOR FILING DATE: 2000-05-30
26 <160> NUMBER OF SEQ ID NOS: 23
28 <170> SOFTWARE: FastSEQ for Windows Version 3.0
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 1260
33 <212> TYPE: DNA
34 <213> ORGANISM: Homo sapiens
36 <400> SEQUENCE: 1
37  cttctgccat ctctctcctc cttttttcttc agccacaggc tcccagacat gacagccatc      60
38  atcaaagaga tcgttagcag aaacaaaagg agatatcaag aggatggatt cgacttagac     120
39  ttgacctata tttatccaaa tattattgct atgggatttc ctgcagaaag acttgaaggt     180
40  gtatacagga acaatattga tgatgtagta aggttttttgg attcaaagca taaaaaccat     240
41  tacaagatat acaatctatg tgctgagaga cattatgaca ccgccaaatt taactgcaga     300
42  gttgcacagt atcctttttga agaccataac ccaccacagc tagaacttat caaacccttc     360
43  tgtgaagatc ttgaccaatg gctaagtgaa gatgacaatc atgttgcagc aattcactgt     420
44  aaagctggaa agggacggac tggtgtaatg atttgtgcat atttattgca tcggggcaaa     480
45  ttttttaaagg cacaagaggc cctagatttt tatggggaag taaggaccag agacaaaaag     540
46  ggagtcacaa ttcccagtca gaggcgctat gtatattatt atagctacct gctaaaaaat     600
47  cacctggatt acagacccgt ggcactgctg tttcacaaga tgatgtttga aactattcca     660
48  atgttcagtg gcggaacttg caatcctcag tttgtggtct gccagctaaa ggtgaagata     720
49  tattcctcca attcaggacc cacgcggcgg gaggacaagt tcatgtactt tgagttccct     780
50  cagccattgc ctgtgtgtgg tgatatcaaa gtagagttct tccacaaaca gaacaagatg     840
51  ctcaaaaagg acaaaatgtt tcacttttgg gtaaatacgt tcttcatacc aggaccagag     900
52  gaaacctcag aaaaagtgga aaatggaagt ctttgtgatc aggaaatcga tagcatttgc     960
53  agtatagagc gtgcagataa tgacaaggag tatcttgtac tcaccctaac aaaaaaacgat    1020
54  cttgacaaag caaacaaaga caaggccaac cgatacttct ctccaaattt taaggtgaaa    1080
55  ctatacttta caaaaacagt agaggagcca tcaaatccag aggctagcag ttcaacttct    1140
56  gtgactccag atgttagtga caatgaacct gatcattata gatattctga caccactgac    1200
57  tctgatccag agaatgaacc ttttgatgaa gatcagcatt cacaaattac aaaagtctga    1260
60 <210> SEQ ID NO: 2
61 <211> LENGTH: 403
```

RAW SEQUENCE LISTING   DATE: 10/18/2004
PATENT APPLICATION: US/10/712,850   TIME: 10:33:57

Input Set : A:\Durden-'850US-SeqList.txt
Output Set: N:\CRF4\10182004\J712850.raw

```
62  <212> TYPE: PRT
63  <213> ORGANISM: Homo sapiens
65  <400> SEQUENCE: 2
66  Met Thr Ala Ile Ile Lys Glu Ile Val Ser Arg Asn Lys Arg Arg Tyr
67  1               5                   10                  15
68  Gln Glu Asp Gly Phe Asp Leu Asp Leu Thr Tyr Ile Tyr Pro Asn Ile
69              20                  25                  30
70  Ile Ala Met Gly Phe Pro Ala Glu Arg Leu Glu Gly Val Tyr Arg Asn
71              35                  40                  45
72  Asn Ile Asp Asp Val Val Arg Phe Leu Asp Ser Lys His Lys Asn His
73          50                  55                  60
74  Tyr Lys Ile Tyr Asn Leu Cys Ala Glu Arg His Tyr Asp Thr Ala Lys
75  65                  70                  75                  80
76  Phe Asn Cys Arg Val Ala Gln Tyr Pro Phe Glu Asp His Asn Pro Pro
77                  85                  90                  95
78  Gln Leu Glu Leu Ile Lys Pro Phe Cys Glu Asp Leu Asp Gln Trp Leu
79              100                 105                 110
80  Ser Glu Asp Asp Asn His Val Ala Ala Ile His Cys Lys Ala Gly Lys
81              115                 120                 125
82  Gly Arg Thr Gly Val Met Ile Cys Ala Tyr Leu Leu His Arg Gly Lys
83          130                 135                 140
84  Phe Leu Lys Ala Gln Glu Ala Leu Asp Phe Tyr Gly Glu Val Arg Thr
85  145                 150                 155                 160
86  Arg Asp Lys Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr Val Tyr
87                  165                 170                 175
88  Tyr Tyr Ser Tyr Leu Leu Lys Asn His Leu Asp Tyr Arg Pro Val Ala
89                  180                 185                 190
90  Leu Leu Phe His Lys Met Met Phe Glu Thr Ile Pro Met Phe Ser Gly
91              195                 200                 205
92  Gly Thr Cys Asn Pro Gln Phe Val Val Cys Gln Leu Lys Val Lys Ile
93          210                 215                 220
94  Tyr Ser Ser Asn Ser Gly Pro Thr Arg Arg Glu Asp Lys Phe Met Tyr
95  225                 230                 235                 240
96  Phe Glu Phe Pro Gln Pro Leu Pro Val Cys Gly Asp Ile Lys Val Glu
97                  245         .       250                 255
98  Phe Phe His Lys Gln Asn Lys Met Leu Lys Lys Asp Lys Met Phe His
99                  260                 265                 270
100 Phe Trp Val Asn Thr Phe Phe Ile Pro Gly Pro Glu Glu Thr Ser Glu
101             275                 280                 285
102 Lys Val Glu Asn Gly Ser Leu Cys Asp Gln Glu Ile Asp Ser Ile Cys
103     290                 295                 300
104 Ser Ile Glu Arg Ala Asp Asn Asp Lys Glu Tyr Leu Val Leu Thr Leu
105 305                 310                 315                 320
106 Thr Lys Asn Asp Leu Asp Lys Ala Asn Lys Asp Lys Ala Asn Arg Tyr
107                 325                 330                 335
108 Phe Ser Pro Asn Phe Lys Val Lys Leu Tyr Phe Thr Lys Thr Val Glu
109             340                 345                 350
110 Glu Pro Ser Asn Pro Glu Ala Ser Ser Ser Thr Ser Val Thr Pro Asp
111             355                 360                 365
```

```
112  Val Ser Asp Asn Glu Pro Asp His Tyr Arg Tyr Ser Asp Thr Thr Asp
113      370             375             380
114  Ser Asp Pro Glu Asn Glu Pro Phe Asp Glu Asp Gln His Ser Gln Ile
115  385             390             395             400
116  Thr Lys Val
119 <210> SEQ ID NO: 3
120 <211> LENGTH: 9
121 <212> TYPE: PRT
122 <213> ORGANISM: Homo sapiens
124 <400> SEQUENCE: 3
125  Asp Leu Asp Leu Thr Tyr Ile Tyr Pro
126   1               5
129 <210> SEQ ID NO: 4
130 <211> LENGTH: 4
131 <212> TYPE: PRT
132 <213> ORGANISM: Homo sapiens
134 <220> FEATURE:
135 <221> NAME/KEY: misc_feature
136 <222> LOCATION: (2)...(3)
137 <223> OTHER INFORMATION: Xaa = Any amino acid
139 <400> SEQUENCE: 4
140  Tyr Xaa Xaa Pro
141   1
144 <210> SEQ ID NO: 5
145 <211> LENGTH: 5
146 <212> TYPE: PRT
147 <213> ORGANISM: Homo sapiens
149 <400> SEQUENCE: 5
150  Tyr Phe Ser Pro Asn
151   1               5
154 <210> SEQ ID NO: 6
155 <211> LENGTH: 6
156 <212> TYPE: PRT
157 <213> ORGANISM: Homo sapiens
159 <400> SEQUENCE: 6
160  Tyr Leu Val Leu Thr Leu
161   1               5
164 <210> SEQ ID NO: 7
165 <211> LENGTH: 4
166 <212> TYPE: PRT
167 <213> ORGANISM: Homo sapiens
169 <400> SEQUENCE: 7
170  Tyr Ser Tyr Leu
171   1
174 <210> SEQ ID NO: 8
175 <211> LENGTH: 7
176 <212> TYPE: PRT
177 <213> ORGANISM: Homo sapiens
179 <400> SEQUENCE: 8
```

RAW SEQUENCE LISTING   DATE: 10/18/2004
PATENT APPLICATION: US/10/712,850   TIME: 10:33:57

Input Set : **A:\Durden-'850US-SeqList.txt**
Output Set: **N:\CRF4\10182004\J712850.raw**

```
180  Tyr Arg Asn Asn Ile Asp Asp
181   1               5
184 <210> SEQ ID NO: 9
185 <211> LENGTH: 8
186 <212> TYPE: PRT
187 <213> ORGANISM: Homo sapiens
189 <400> SEQUENCE: 9
190  His Cys Lys Ala Gly Lys Gly Arg
191   1               5
194 <210> SEQ ID NO: 10
195 <211> LENGTH: 6
196 <212> TYPE: PRT
197 <213> ORGANISM: Homo sapiens
199 <400> SEQUENCE: 10
200  Asp His Asn Pro Pro Gln
201   1               5
204 <210> SEQ ID NO: 11
205 <211> LENGTH: 9
206 <212> TYPE: PRT
207 <213> ORGANISM: Homo sapiens
209 <400> SEQUENCE: 11
210  His Phe Trp Val Asn Thr Phe Phe Ile
211   1               5
214 <210> SEQ ID NO: 12
215 <211> LENGTH: 13
216 <212> TYPE: PRT
217 <213> ORGANISM: Homo sapiens
219 <400> SEQUENCE: 12
220  Thr Leu Thr Lys Asn Asp Leu Asp Phe Thr Lys Thr Val
221   1               5                   10
224 <210> SEQ ID NO: 13
225 <211> LENGTH: 12
226 <212> TYPE: PRT
227 <213> ORGANISM: Homo sapiens
229 <400> SEQUENCE: 13
230  Gly Asp Ile Lys Val Glu Phe Phe Thr Lys Thr Val
231   1               5                   10
234 <210> SEQ ID NO: 14
235 <211> LENGTH: 14
236 <212> TYPE: PRT
237 <213> ORGANISM: Homo sapiens
239 <400> SEQUENCE: 14
240  Asp Lys Ala Asn Lys Asp Lys Ala Asn Phe Thr Lys Thr Val
241   1               5                   10
244 <210> SEQ ID NO: 15
245 <211> LENGTH: 19
246 <212> TYPE: PRT
247 <213> ORGANISM: Homo sapiens
249 <400> SEQUENCE: 15
```

RAW SEQUENCE LISTING   DATE: 10/18/2004
PATENT APPLICATION: US/10/712,850   TIME: 10:33:57

Input Set : A:\Durden-'850US-SeqList.txt
Output Set: N:\CRF4\10182004\J712850.raw

```
250 Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr Val Tyr Tyr Tyr Ser
251  1            5                10                15
252  Tyr Leu Leu
255 <210> SEQ ID NO: 16
256 <211> LENGTH: 8
257 <212> TYPE: PRT
258 <213> ORGANISM: Homo sapiens
260 <400> SEQUENCE: 16
261  Arg Tyr Ser Asp Thr Thr Asp Ser
262  1            5
265 <210> SEQ ID NO: 17
266 <211> LENGTH: 11
267 <212> TYPE: PRT
268 <213> ORGANISM: Homo sapiens
270 <400> SEQUENCE: 17
271  Lys Gly Val Thr Ile Pro Ser Gln Arg Arg Tyr
272  1            5                10
275 <210> SEQ ID NO: 18
276 <211> LENGTH: 7
277 <212> TYPE: PRT
278 <213> ORGANISM: Homo sapiens
280 <400> SEQUENCE: 18
281  His Thr Gln Ile Thr Lys Val
282  1            5
285 <210> SEQ ID NO: 19
286 <211> LENGTH: 29
287 <212> TYPE: DNA
288 <213> ORGANISM: Artificial Sequence
290 <220> FEATURE:
291 <223> OTHER INFORMATION: Primer
293 <400> SEQUENCE: 19
294  gggtccacat gacagccatc atcaaagag                               29
297 <210> SEQ ID NO: 20
298 <211> LENGTH: 29
299 <212> TYPE: DNA
300 <213> ORGANISM: Artificial Sequence
302 <220> FEATURE:
303 <223> OTHER INFORMATION: Primer
305 <400> SEQUENCE: 20
306  ggtctagatc agacttttgt aatttgtga                               29
309 <210> SEQ ID NO: 21
310 <211> LENGTH: 4
311 <212> TYPE: PRT
312 <213> ORGANISM: Homo sapiens
314 <220> FEATURE:
315 <221> NAME/KEY: misc_feature
316 <222> LOCATION: (2)...(3)
317 <223> OTHER INFORMATION: Xaa = Any amino acid
319 <400> SEQUENCE: 21
```

RAW SEQUENCE LISTING ERROR SUMMARY   DATE: 10/18/2004
PATENT APPLICATION: US/10/712,850   TIME: 10:33:58

Input Set : **A:\Durden-'850US-SeqList.txt**
Output Set: **N:\CRF4\10182004\J712850.raw**

Please Note:
Use of n and/or Xaa have been detected in the Sequence Listing. Please review the
Sequence Listing to ensure that a corresponding explanation is presented in the <220>
to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:4; Xaa Pos. 2,3
Seq#:21; Xaa Pos. 2,3
Seq#:22; Xaa Pos. 3,4,5,6,7
Seq#:23; Xaa Pos. 3,4,5,6

VERIFICATION SUMMARY DATE: 10/18/2004
PATENT APPLICATION: **US/10/712,850** TIME: 10:33:58

Input Set : **A:\Durden-'850US-SeqList.txt**
Output Set: **N:\CRF4\10182004\J712850.raw**

L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:0
L:320 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:21 after pos.:0
L:336 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:22
L:337 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:22 after pos.:0
L:352 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ ID#:23
L:353 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:23 after pos.:0